



# OverSTORY

Timber

Research

Environmental

Education

Volume 1 Number 2

Fall 2019

Newsletter of the Maine Tree Foundation



## President's Message

By Marcia McKeague, President

As I prepare to make my annual donation to the Maine TREE Foundation, I think about whether our programs are still relevant to our times. Climate change is far and away the most serious environmental issue of our times and it is clear that the next generation wants meaningful action from the generations who are "in charge". Trees and forests are and can be a key part of the solution. With our programs aimed at educating teachers, students, landowners, loggers, foresters and recreational users and our advocacy for sustainable use of forests, we are part of the solution.

I also think with great appreciation of the people who have come before me and who stand beside me in leading and supporting this endeavor particularly with this being the 30th year of the organization's existence. A sincere thank you to all of you! Let's keep it going.

I hope you will feel encouraged to read about the successes we've had and how we are fine-tuning our programs thanks to our thoughtful, energetic employees and associates who spear-head these efforts.

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## Connections!

By Henry Whittemore,  
Executive Director

In reflecting over a busy year at the Maine TREE Foundation, I find myself considering what makes this organization special. For me, the answer is the connections this organization creates between Maine's forests and the communities and economy that derive so much of their own identities from the forest. If you read our mission statement: "*The Maine TREE Foundation educates and advocates for the sustainable use of the forest and the ecological, economic and social health of Maine's forest community,*" this seems obvious, but the connections that come to mind since taking on the leadership of this organization extend well beyond the mission statement.

Maine TREE is closely connected to nearly every aspect of Maine's forested landscape. Through our programs we link Mainers to a broad array of topics such as forest ecology, forest management, silviculture, the forest products industry, sustainable timber harvesting, safe logging practices, recreation, forest measurements, climate change considerations, and more. This is especially important in a rapid-paced world where so many of us – and our children – are better connected to technology than they are to the natural world around us. Maine TREE forges strong ties to our forests for all Mainers and brings our communities to a closer awareness of the natural environment that defines who we are. We help folks remember that all parts of healthy ecosystems are intertwined.

In this issue of OverSTORY you will read about our Teachers' Tours that were held in northern Maine and the Rangeley Region this summer. I am always impressed how a group of 30 folks who have never before been together becomes a community after four

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**Mission:** The Maine TREE Foundation educates and advocates for the sustainable use of the forest and the ecological, economic and social health of Maine's forest community.

**The Vision of the Maine TREE Foundation:** The public values and supports Maine's healthy forest ecosystems, forest professionals, scientific forest management, and sound public policies that sustain Maine's forest-dependent people and communities.

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## PLT Update (or Three Months in the Life of a New Maine PLT Coordinator)

By Christine Anderson-Morehouse

I joined Maine Project Learning Tree as its new state coordinator in mid-June. A few fun facts about my work reveal the great variety of educational opportunities and activities of Maine PLT and the Maine TREE Foundation over this period.



Counties in which PLT workshops will have been offered by publication date:

- Washington- Beatrice Rafferty School (teachers); York- University of New England (undergraduate science education students); Cumberland- Lakes Environmental Association (university professors); Androscoggin- Spruce Mountain school district (teachers); Franklin- Grants Kennebec Camps (Summer Forest Teachers' Tour); Aroostook- Libby Camps (Summer Forest Teachers' Tour); Penobscot- Lee Academy (Penquis and southern Aroostook teachers), Waldo- Unity College (university professors)
- Forestry Teachers' Tours planned and supported: 2
- PLT workshops planned to incorporate new NGSS strategies: 5
- Meetings with Maine Forest Service and other foresters to co-plan: 5
- Meetings with teachers to co-plan: 5
- Meetings with professors to co-plan: 3
- Organizations met with to attend board or committee meetings: Maine PLT steering committee, Maine PLT strategic planning sub-committee, Forest Inventory Growth (FIG) steering committee, Maine TREE Foundation board, Maine Sustainable Forest Initiative implementation committee, Maine Tree Farm steering committee, Nature Based Education Consortium steering committee
- Organizations partnered with as a collaborator: Environmental Changemakers (MEEA), STEMscopes (MMSA), Friends of Katahdin

Woods and Waters, Nature Based Education Consortium

- Meetings with leaders from National PLT: 3
- Reports to national PLT: 5
- Grant applications worked on for PLT or for Maine TREE Foundation: 4
- Maine TREE Foundation 30<sup>th</sup> anniversary celebrations: 1
- PLT coordinator retirement parties: 1
- Mornings awakened between 4:30-5:00 with wonderful ideas about the work of PLT: Almost all of them!

PLT Next Steps:

On the horizon, I look forward to continuing the collaborative planning that gives me such joy in this position including co-planning two online workshop follow-ups; co-planning and facilitating a PLT workshop at the UMaine School of Forest Resources for undergraduate forestry students and another workshop series in January for Maine Tree Farmers to support them in sharing their stories within local schools and communities. The new year will see us offering professional development for PLT facilitators including a networking event for “PLT veterans” to share and learn new strategies and a training for new PLT facilitators, particularly ones in regions of Maine that are currently under-served. Conversations have begun about the ever-popular Teachers’ Tours and an off-shoot from last-year’s tours is a goal to identify forestry career learning opportunities for students, teachers and guidance counselors. 🌿



Teachers visiting Bob Vigue’s Tree Farm in Mapleton

A Hearty Round of PLT Applause to the following facilitators extraordinaire:

Colin Brown	Michael Jensen
Jason Cyr	Laura Audibert
Cameron Sutton	Walker Day
Oliver Markewicz	Rob Taylor
Shane Duigan	Susan Linscott
Morten Moesswilde	Tom Mullin
Alanna Doughty	Terri Coolong
Tim Surrette	

Sincere and special PLT thanks to:

- Pam Dunphy and Renee St. Peter (Old Town Elementary School forest and garden tour)
- Jim and Sandra Pottle Tree Farm (PLT workshop at Sipayik)
- Ken Laustsen, Jack Witham, Sarah Morriseau and Alex Brasili (FIG survey and website)
- Kala Rush (Friends of KWW), Krysten Gorrivan (UNE)
- Me PLT Steering Committee
- Me PLT Strategic Planning Committee
- Laurie Haines (PLT 20 Year History Book)
- Everette Rufolo-Roger, Esther Cowles, Susan Cox (Project Learning Tree)
- CJ Herlihy (Woman for All Seasons)



**SAVE THE DATE  
CLP BANQUET**

**December 6, 2019**

**5:00 pm – 8:00 pm**

**Jeff’s Catering, Brewer, Maine**

## Forests of Maine Summer Teacher Tours

(Bringing Our Working Forests and Mills into the Classroom)



Teacher: “This was the best professional development I’ve had in years. I’ve learned a great deal to use in my classroom!”

Forester: “When a forester enters a stand to create a management plan, their first question is not ‘What should we cut?’, but rather, ‘How did this stand get to be in this condition and what might we retain in order to meet our management objectives?’”

July, 2019 found two groups of Maine classroom teachers gathering at two different Maine sporting camps for the professional learning experience of a lifetime. Long drives over gravel logging roads brought them to their home base for the week in rustic, lake-side lodges and cabins at Libby Camps (outside of Ashland) or Grants’ Kennebago Camps (in the Rangeley area) where their tour planners this year were foresters from Seven Islands Land Company.

What Did They Learn?

The vastness of the north Maine woods and the

interconnected network of private logging roads was the first indicator that Maine’s classroom educators were in a different world, one where abundant natural resources provide both beauty and recreation while at the same time drive Maine’s forest based economy. A tour bus history lesson set the stage for understanding the evolution of the industry from log drives to budworm outbreaks to legislation (including Maine’s Forest Practices Act and Outcome Based Forestry) to today’s practices.

After hearing about and experiencing firsthand the “prescriptions” for a range of treatment areas (including clearcuts, pre-commercial and commercial thinnings, etc.) teachers came away knowing the relationships and differences between forestry (growing trees for the future) and logging (a tool used to practice forestry) and why Maine’s abundance of naturally regenerating species often precludes the need to plant trees in order to regenerate the forest. A Project Learning Tree activity called “A Forest of Many Uses” was experienced in real life as teachers viewed techniques for supporting different wildlife habitats (including birds, moose, deer, lynx, and “rabbitat”)

as well as public recreation and windmills. Modern logging equipment left them in awe with one exclaiming, “This industry is so much more modern and computerized than I thought!”

Conversations with logging contractors raised awareness of high-paying job opportunities (and the need for more workers), while a Society of American Foresters discussion and pamphlet explained college-based options for working in the forest. With small, non-industrial forests occupying an important position in Maine’s economy, teachers also experienced the passionate nature and diverse land management strategies of two Maine Tree Farmers and their foresters.

The last day of each Forestry Teachers’ Tour found the groups meeting back at camp to share and hear feedback and suggestions about plans to translate their experiences to the classroom. Combined with PLT lessons, ideas from these tours have been incorporated into early childhood habitat explorations all the way up to high school math classes, often in a school forest classroom setting and frequently including connections to forest careers.

In the words of a few Teacher Tour participants:

- “It was very eye-opening to see from start to finish the journey of a tree.”
- “More people in the industry are interested in sustainability and managing the land for wildlife than most people understand.”
- “I learned how responsible Maine’s woodlot owners, lumber mills and foresters are with the land. I saw a lot of good stewardship.”

From now on, when they pass a truckload of wood on Maine’s roads, teachers will notice and wonder about the species, the destination and whether it was harvested tree-length or cut-to-length. They will think about the many forestry and logging professionals involved in turning those trees into products and how their own students might become part of Maine’s forest future. 🌳

## Maine’s New Next Generation Science Standards:



Why New? Why Now?  
How Does PLT Fit In?

Our future depends on having curious, well-informed, critically-thinking citizens who understand how the world works. What are the big ideas in science that everyone should understand? What are the ways of thinking that make science unique? What does the latest brain research say about how students best learn these ideas and ways of thinking? The Next Generation Science Standards (NGSS), adopted by the State of Maine as our science learning results this past spring, were created to answer these questions with research-based information in order to guide educators in offering the most engaging and forward-thinking instruction possible.

### The “Practices”:

Our scientific understanding of the natural world (how plants grow, how ecosystem components interact, etc.) comes through the work of scientists who investigate and build models and theories, both to understand and to explain their thinking. K-12 science classes of the past focused teaching and learning predominantly on one protocol called The Scientific Method, frequently presented as a series of steps to be followed from start to finish in a classroom lab, usually after learning the content first. A not uncommon result was that students could repeat the information on an exam or come up with the answer that was expected on a lab, but would revert back to their own unique ideas about the content after the passage of time. NGSS has better defined the actual (frequently messy) practices of scientific inquiry and has embedded these practices into grade-appropriate, student-driven learning of content all the way from K-12.

### NGSS “Practices” include:

- Asking Questions
- Developing and Using Models
- Planning and Carrying Out Investigations
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Constructing Explanations

- Engaging in Argument from Evidence
- Obtaining, Evaluating, and Communicating Information

### How Does PLT Address the Next Generation Science Standards?

Because both PLT and NGSS place importance on the interconnected nature of science as practiced and experienced in the real world, educators are finding it easy to use some PLT lessons directly as written or to make minor adaptations to others in order to address the more complex nature of the NGSS. Through a new, NGSS-focused version of the popular Maine PLT workshops, Maine's science teachers now have a perfect opportunity to learn about and address NGSS via PLT professional development. (Contact Maine PLT coordinator Christine Anderson-Morehouse to learn about PLT/NGSS opportunities: [christine@mainetree.org](mailto:christine@mainetree.org))

Here are a few of the many examples where PLT lessons can provide engaging, place-based ways of addressing specific NGSS standards:

Make observations of plants and animals to compare the diversity of life in different habitats.

- #9 Plant Diversity
- #46 Schoolyard Safari

Construct an argument with evidence that in a particular habitat, some organisms can survive well, some less well and some cannot survive at all.

- *Tree Identification (notice tree species that have varied tolerances to shade or moisture)*
- #27 Every Tree for Itself
- #22 Trees as Habitats

Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior and reproduction

- #62 To Be a Tree
- #63 Tree Factory
- #61 The Closer You Look
- #76 Tree Cookies

Develop a model to describe the movement of matter among plants, animals, decomposers and the environment.

- #45 Web of Life
- #23 Fallen Log

Construct a scientific explanation based on evidence for the role of photosynthesis in the

cycling of matter and flow of energy into and out of organisms.

- #45 Web of Life
- #42 Sunlight and Shades of Green
- #28 Air Plants
- #41 How Plants Grow

Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

- #27 Every Tree for Itself
- #48 Field, Forest and Stream
- #41 How Plants Grow
- *Carbon and Climate E-Unit (ecozones)*

Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems (*predator/prey/mutualism*)

- #26 Dynamic Duos
- #25 Birds and Worms
- #88 Life on the Edge
- #45 Web of Life 

## 65<sup>th</sup> Annual Forestry Field Day

On September 7, Don Newell and his family hosted Maine Tree Farm and Maine Woodland Owners' 65<sup>th</sup> Annual Forestry Field Day at their 200-plus acre woodlot in Unity and Thorndike. Over 200 family forest landowners and community members braved the strong winds and rain produced by hurricane Dorian to celebrate the Newell family's accomplishment of being named the 2019 Maine Outstanding Tree Farmers.

The event featured several tours designed to educate the public on forestry issues and to encourage them to utilize sustainable forestry practices. Don Newell led a tour into an area of his forest that he has been actively managing for 40 years. At this tour stop Dr. Kevin Spigel, of Unity College, gave an informative talk about surficial geology and its influence on the forested area.

Rob Nelson, Newell's consulting forester, led a group to discuss active stewardship projects on the property, especially those funded through United States Department of Agriculture's Natural Resource Conservation Service (USDA NRCS). One of the stops on this tour featured a low impact forestry demonstration of modern logging equipment and techniques used to limit damage to soil and vegetation.

Several walking tour options were offered. Aleta McKeague of the Waldo County Soil and Water Conservation District discussed invasive plant species often found in woodlands and management techniques used to control them. Sally Stockwell of Maine Audubon and Amanda Mahaffey of the Forest Stewards Guild offered a Forestry for Maine Birds tour to share why birds are used as an indicator of forest health and what to look for when managing a woodlot with birds in mind. Dave Rocque, Maine's State Soil Scientist, brought participants to "soil pits" on the property that illustrate the importance of soil with regard to forest health and stand dynamics.



The Newell Family

A central exhibitor's tent included table displays from SAPPI North America (an event sponsor), the Maine chapter of the Society of American Foresters, the Maine Organic Farmers and Gardeners Association (who donated tables and chairs for the day), the American Forest Foundation, OESCO, Inc. (supplier of woodlot management tools and a longtime Field Day sponsor), and Kennebec Lumber Company.

The Maine Department of Agriculture, Conservation and Forestry staffed informational booths from the Maine Forest Service (MFS) and the Maine Natural Areas Program. A MFS Forest Ranger, entomologist, and forester were on hand to answer questions and refer folks to additional resource professionals. The Department of Inland Fisheries and Wildlife's Operation Game Thief trailer offered opportunities to learn the differences between a Forester, a Forest Ranger, and a Game Warden.

Many Unity College students joined the Forestry Field Day programs. When not enjoying the tours and education exhibits they delivered Project Learning Tree Activities to the children at the event under the guidance of Dr. Kayla Higgins, Unity

College's Experiential Education Coordinator. Pat Sirois, Director of Maine's Sustainable Forestry Initiative, displayed the SFI's always popular flume table that is used to demonstrate best management practices and the effects of undersized culverts and erosion on waterways.

The recognition portion of the event was held after lunch. Maine Tree Farm Committee Chair Andy Shultz, and Maine Woodland Owners President Paul Sampson each thanked their respective members for attending and supporting the event.

Senator Susan Collins addressed the assembled group "to celebrate the great heritage we have in the State of Maine." She said "[The Newells] epitomize what Tree Farmers do in Maine," going on to explain that they "manage the forest sustainably, are generous to future generations, and open the land to public use, which is unusual compared to other parts of the nation." She extended her congratulations not only to Don Newell and his family, but to all Tree Farmers. Senator Angus King, who was unable to attend sent his congratulations to the Newells via a representative from his office.

State Senator Erin Herbig of Belfast, who represents the Newells in Augusta, offered a legislative sentiment to congratulate the family. In her remarks, Senator Herbig quoted an often used phrase of Don's: "you should really come check out my woodlot."

Patty Cormier, recently appointed Maine State Forester, presented the Newell family a certificate for a free Stihl chainsaw. When introducing him, she explained that "Don has been bitten by the bug of woodland stewardship." Cormier also presented State Senator Russell Black, the 2018 Maine Outstanding Tree Farmer with his award for being named the Northeast Regional Finalist for last year's National Outstanding Tree Farmer of the Year competition.

Don Newell closed the speakers' portion of the event thanking everyone in attendance for braving the weather. He was humbled by the remarks of the speakers, going on to say: "No one did what we did for recognition. We did it because it was the right thing to do." And then he and the other guides went back to the woods for another set of tours. 🍂

## Mechanized Logging Operations Program completes 3rd Successful Year

*12-week college certificate program trains students to operate modern logging machines*

By Dana Doran, Executive Director, Professional Logging Contractors of Maine (PLC)

Fifteen students completed the 3<sup>rd</sup> Mechanized Logging Operations Program (MLOP) 12-week certificate class on Sept. 19, ending another successful summer for Maine's only post-secondary training program for operators of mechanized logging equipment.

Students enrolled in the community college program spent the summer harvesting timber in the woods of Western Maine using sophisticated state-of-the-art machines like those they will encounter in the logging industry. This hands-on experience is something unavailable anywhere else in Maine and neighboring states.



*Group Photo*

The MLOP program provides a direct pathway to a good-paying, exciting career in the Maine woods at a time when there is huge demand for new workers. There is literally no better or more efficient way to gain the experience and knowledge you need to become an equipment operator in the logging industry.

The program was created thanks to a partnership between three Maine community colleges, the PLC, and industry partners including Milton CAT and Nortrax. It gives students a broad overview of the most common mechanical systems found in modern timber harvesting equipment, and an understanding of the variables of timber growth, tree species, and markets. It also includes a strong emphasis on safety.

Students pay no tuition due to funding provided by Maine Quality Centers and a Put ME to Work

grant. Students are responsible for transportation, housing, and food costs. Personal Protective Equipment (PPE) is provided by the program.

Mechanized logging operators are among the highest paid members of the logging workforce, and demand for them has risen as many current operators have reached retirement age.

A video giving potential students a good look at the opportunities afforded by the program and the logging industry is available on YouTube at <https://www.youtube.com/watch?v=eI5YwXiM6Gg>

For more information contact Leah Buck at Northern Maine Community College at 207-768-2768 or go to <https://www.nmcc.edu/industry-customized-training/mechanized-forest-operations/>



## Keeping Maine's Forests is Partnering with Northern Forest Center on Maine Woods Discovery Ambassador Training

One of the unique aspects of Maine's northern forests is that it is open to the public for recreational uses. Maine's "open lands" policy builds on a 200-year-old tradition of hosting visitors to the north woods for hunting; fishing; exploring the myriad lakes, streams and rivers; and enjoying the outdoors. That tradition continues today, but north woods businesses are looking for help in developing tourism that is customized to today's visitors while still respecting the uniqueness of the Maine Woods.

The Northern Forest Center, through the Maine Woods Consortium, is helping to boost tourism in the north woods by professionalizing the workforce. MWC is developing an on-line curriculum called the Maine Woods Discovery Ambassador Training for front-line workers. The goal of the training is to teach those who deal one-on-one with visitors to reach out to help their customers have the best experience possible while in Maine. That means exceeding expectations in terms of service, deepening the customer's experience and understanding of the north woods, and (of course) keeping them safe and happy. The goal becomes more challenging when many of the front-line workers are, themselves, from outside Maine or, indeed, outside the country.

The Northern Forest Center turned to Keeping Maine's Forests to assist in writing the curriculum in such a way that trainees can, in a one-hour online session, learn what they need to know to provide

superior service to those visiting the Maine woods. The online curriculum will be designed to be engaging, but also cover the basics of north woods geography, history, culture and safety, in addition to recreation. In the end, NFC and KMF expect that visitors will recommend Maine's north woods to others and come back themselves, again and again.



## Holt Research Forest hosts Four Summer Interns

By Logan Johnson

This summer the Maine TREE Foundation hired four interns for the summer to assist with research at the Holt Research Forest (HRF) in Arrowsic. Under the supervision of research scientist, Jack Witham, the interns performed a variety of data collection tasks in the HRF study area. These tasks included inventorying overstory trees, saplings, and regeneration and performing seed counts for seed trap samples collected in 2016, 2017, and 2018. The interns also performed maintenance in the study area in which they cleared, maintained, and marked trails that are used for navigating around the study area.

The interns also worked on a few special projects. One of the projects included developing a methodology for using trail cameras to quantify the types of predators and small mammals found in the HRF. Another assignment was the annual spring salamander census. The salamander census is done by placing cedar shingles on the forest floor of the research area that salamanders can use as cover for dwelling or protecting their eggs. A few times a year, we lift each shingle and record the number of salamanders present. The interns also visited the Penobscot Experimental Forest in Milford where they worked with US Forest Service employees to collect data including pre-burn biomass fuel measurements.

Read the interns' bios below to learn more about where they are from and where they hope the HRF internship will lead them.

### Henry Amponsah



Henry is currently a Master of Forestry student in the University of Maine's School of Forest Resources. He received a Bachelor of Science in Botany from the University of Ghana in 2017. From Ghana originally, Henry moved to Maine to pursue graduate studies.

In the 2018-19 academic year, he earned a teaching

assistantship from the University of Maine's School of Biology and Ecology. Henry's interest goes into forest carbon, carbon accounting, and climate change

### Paige Howell

Paige is an environmental science and geology student at Northeastern University in Boston, where she is one semester away from graduating. Originally from Sarasota, Florida, her father, who was an environmental scientist taught her an appreciation for the forest and environment at a very young age. Upon graduating, Paige hopes to take a break from school and work in Maine before returning to pursue a Master degree in Geology.



### Meredith Melendy

Meredith is a Junior at Bates College, majoring in Environmental Studies with concentration in Global Environmental Politics, Water and Society, and Identity, Race and Ethnicity. She is from Grantham,

New Hampshire and knew from an early age that she was deeply attached to nature. She is a member of the Bates women's varsity basketball team and a Student Manager of the Bates Academic Resource Commons, a place for academic tutoring

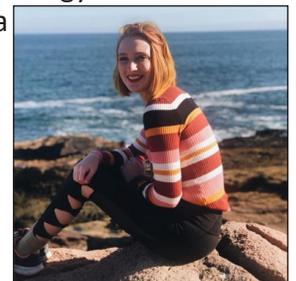
and support. Meredith plans to attend graduate school upon the completion of her undergraduate education.



### Danielle Wyman

Danielle was the intern cohorts Mainer, hailing from Clifton. She is in her fourth year at the University of Maine where she is studying Ecology and Environmental Sciences with a concentration in Forest Ecosystems. Her love of the outdoors began at a young age when she picked up hobbies such as hiking,

snowboarding, surfing, and rock climbing. She has always been intrigued in learning more about the Environment. Her interests include forest management, interactions between animals and their ecosystems, recreational use of the outdoors, conservation, and environmental advocacy.



## Continued from Page 1

days of working and learning together. We introduce you to four interns that helped advance our ecological research at the Holt Research Forest this summer. We profile our award-winning Project Learning Tree program that continues to teach students “how to think, not what to think” while getting kids outside in an environment where learning and critical thinking just seem to naturally happen. There’s more: read on!

We celebrated our thirtieth anniversary this year and enjoyed a fun September gathering in Orono where we visited the Old Town Elementary School’s outdoor classroom and school gardens, and enjoyed a barbecue with live music at the forestry school pole barn. We wished Pat Maloney well in her retirement and acknowledged her many contributions to environmental education in Maine through the PLT Stewardship award. We welcomed Christine Anderson-Morehouse as our new PLT Coordinator. Christine is hard at work designing programs and workshops for the coming year. She is making connections between PLT and the Next Generation Science Standards and bringing environmental education to more schools as well as to new audiences. Welcome, Christine!

Finally, with Governor Mills and DACF Commissioner Beal, we conferred the Austin Wilkins Forest Stewardship award to the Maine Association of Conservation Districts (SWCDs). SWCDs support forest stewardship and woodlot management to benefit forests, soil health, and water quality. Maine’s Soil and Water Conservation District Supervisors, staff, and volunteers are leaders who promote the importance of forest stewardship at local, state, and national levels.

All of this work of the Maine TREE Foundation creates connections between Mainers and this beautiful, most-heavily forested state that we call home. Please join me in celebrating our forests and all of these connections!

## Happenings at Holt Research Forest

With the Holt Research Forest field season (37<sup>th</sup> consecutive year) nearly complete we’ll reflect on the season’s accomplishments and begin planning for 2020. All of our work this summer and next will be to update some of our crucial data sets for assessing forest change. We are in the midst of developing a research and management plan with the hope of a timber harvest within the study area in 2020.



Students counting seeds on a rainy day. From left to right Paige, Meredith, Danielle, and Henry

The hiring of student interns (see Summer Interns article on page 9) for the summer gave the research a tremendous boost. This was a fabulous learning opportunity for the students as most had little to no field experience. The students all happily resided at the HRF. It would have been nearly impossible for this diverse group of students to work here without provided housing. We look forward to hosting another group of interns next year with the aim of setting the stage for more HRF research, initiating our first timber harvest in 30 years, conducting citizen science, outdoor classrooms and welcoming more day camp kids from Kennebec Estuary Land Trust.



Danielle, Meredith, and Henry during a break from tree measuring

Our summer interns this year collected and catalogued seeds, set up 20 game cameras to detect predators, washed 300 small mammal traps, counted salamanders, maintained over 8 miles of gridlines, painted 5 miles of quadrat lines, nearly 3.5 miles of sub-quadrat lines, measured 73 200m<sup>2</sup> (~1/20<sup>th</sup> acre) sapling plots, 292 4m<sup>2</sup> (~milacre) seedling plots, all trees in 9ha (over 22 acres), and more. They learned a great deal about field science and the HRF gained new, updated data and updated our baseline information that will serve as the platform for new research in years to come. All told, this was a wonderful win-win for HRF, Maine TREE and the interns!

## Maine TREE Foundation 30th Anniversary Celebration Photos

Our August small mammal trapping session yielded only 35 total captures. This was a record low and an unprecedented drop in total captures from 1,393 in 2018. White-footed mice were at their lowest level since 1983 when there were 7 captures. A greater diversity of species was captured than in most recent years; these included Masked Shrew, Short-tailed Shrew, Eastern Chipmunk, Red Squirrel, Southern Flying Squirrel, White-footed Mouse, Red-backed Vole, and Meadow Jumping Mouse.

The game cameras recording images at HRF have been successful at documenting an array of activity in the forest. Both still pictures and video have been recorded. This is our first definitive look at mammalian predators since winter track counts ended in the 90's. These species can have a profound influence on small mammal populations. Species recorded include white-tail deer, coyote, fisher, weasels, otter, raccoon, porcupine, red squirrel, chipmunk, flying squirrel, white-footed mice, turkey, blue jay, pileated woodpecker, and hairy woodpecker. 🌿



Brian Roth showing how the Flume Table works

🌿🌿🌿 **SAVE THE DATES** 🌿🌿🌿

### 2020 TEACHERS' TOURS

July 14 - 17, 2020

July 28 - 31, 2020

**Our 23rd Year of Offering our 4-Day  
Tours of Maine's Forests & Mills**

**Locations to be determined -  
stay tuned!**

**To receive a brochure please email  
[info@mainetree.org](mailto:info@mainetree.org)**



Guests enjoying the music during dinner



# Maine **TREE** Foundation

TIMBER RESEARCH & ENVIRONMENTAL EDUCATION



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